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# **Notice of Allowability**

Application No.

10/825,495

Examiner

Jessica L. Reidel

Applicant(s)

XUE, JOEL Q.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Applicant's Amendment of 12/23/2005.
2. ☒ The allowed claim(s) is/are 1,4-15,23 and 24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## **Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance              |
|   | 9. <input checked="" type="checkbox"/> Other <u>See Continuation Sheet</u> .           |

Continuation of Attachment(s) 9. Other: Citation of pertinent prior art.

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 1, 4-15 and 23-24 are allowed.

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Albrecht et al. (U.S. 5,891,045) (herein Albrecht '045) discloses a method of determining alternans data of an ECG signal (see Albrecht '045 Abstract, column 3, lines 52-67, column 12, lines 23-26 and column 14, lines 45-52). The method of Albrecht '045 comprises, at step 420, determining at least one value representing at least one morphology feature of each beat of the ECG, generating a set of data points based on a total quantity of values and a total quantity of beats, (see Albrecht '045 Fig. 9, column 9, lines 33-40, column 10, lines 1-12 and column 13, lines 12-30) and, at step 425, separating the data points into a first group and second group (see Albrecht '045 Fig. 9, column 10, lines 13-16) and at step 430, generating a feature map by applying a gridding procedure to the array in order to assess the alternans pattern of variation where the map may be a two-dimensional representation of portions of the body surface (see Figs. 9, 13 and 18, column 10, lines 49-52 and lines 60-64 and column 11, lines 12-17). Although Albrecht '045 further discloses that the feature maps may be used to assess alternans patterns of variation, the amplitude of the alternans pattern of variation is not determined by determining a first center point and a second center point of the data points and determining a distance between the first center and the second center point.
3. Albrecht '045 does not provide or suggest a method where the generated feature map is used to visually determine whether an alternans pattern of variation exists in a manner such that

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an alternans pattern of variation exists if the first group of points are spaced from the second group of points and an alternans pattern of variation does not exist if the first group of points are not spaced from the second group of points.

4. Albrecht '045 does not provide or suggest a method where the two sets of data points are processed using cluster analysis to generate a first cluster of points and a second cluster of points and then comparing the first cluster of points with the first group of data points; comparing the second cluster of points with the second group of data points and determining a value representative of match points between the first cluster of points and the first group of points and matched point between the second cluster of points and the second group of points.


5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

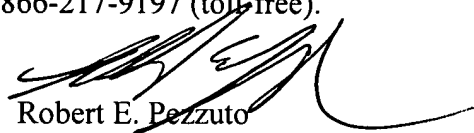
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessica L. Reidel whose telephone number is (571) 272-2129. The examiner can normally be reached on Mon-Thurs 7-4:30 and every other Friday 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pezzuto can be reached on (571) 272-6996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jessica L. Reidel  
Examiner  
Art Unit 3766  
02/02/06

  
Robert E. Pezzuto  
Supervisory Patent Examiner  
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